

IN THE CLAIMS:

1. (Currently Amended) Apparatus for controlling the childbirth ~~labour~~ labor comprising:

- an electromyographic unit with sensors associated therewith for detecting the electrical signals of a parturient's uterus and means for analyzing and processing said electrical signals[[,]]; 5

- a pneumatic belt to be fixed around the parturient's abdomen and having sensors associated therewith to detect the variations of the internal pressure of an interior of said pneumatic belt due to uterine contractions, and means for inflating said belt to provide a thrust as an aid for the expulsion of the fetus[[,]]; and ~~characterized in that~~

10 a device ~~is provided~~ associated with ~~said~~ pneumatic belt sensors and to control the activation of said means for ~~the inflation of~~ inflating the pneumatic belt.

2. (Currently Amended) Apparatus according to claim 1, characterized in that ~~the~~ said device comprises an AND gate with its AND gate inputs being connected, respectively, to ~~the~~ an output of said electromyographic unit and to ~~the~~ an output of an A/D converter located downstream of said sensors which are housed in the belt, and with its output being connected 5 with the input of a D/A converter, ~~whose~~ D/A converter output is connected with said means for ~~the inflation of~~ inflating the belt.

3. (Currently Amended) Apparatus according to claim 2, characterized in that a first

switch is inserted on ~~the~~ a line connecting the AND gate with the D/A converter.

4. (Currently Amended) Apparatus according to claim 2, characterized in that a second switch is inserted on ~~the~~ a line connecting the A/D converter with the D/A converter, said second switch operating in push-pull mode with respect to said first switch.

5. (Currently Amended) Apparatus according to claim 1, characterized in that ~~the~~ said means for analyzing and processing of the electromyographic unit consist of a PC associated with the electromyographic unit.

6. (Original) Apparatus according to claim 3, characterized in that a second switch is inserted on the line connecting the converter with the converter, said second switch operating in push-pull mode with respect to said first switch.

7. (New) Apparatus for controlling childbirth labor, said apparatus comprising:  
an electromyographic unit with sensors associated therewith for detecting electrical signals of a parturient's uterus;  
means for analyzing and processing said electrical signals; and  
a pneumatic belt fixed around a parturient's abdomen having sensors associated therewith to detect the variations of an internal pressure of an interior of said pneumatic belt due to uterine contractions; and

means for inflating said belt to provide a thrusting force to aid in expulsion of a fetus, including a control associated with pneumatic belt sensors for controlling the activation of said means for inflating said pneumatic belt.

8. (New) Apparatus according to claim 7, wherein said device comprises an AND gate with AND gate inputs being connected, respectively, to an output of said electromyographic unit and to an output of an A/D converter located downstream of said sensors which are housed in the belt, and with its output being connected with the input of a D/A converter, D/A converter output is connected with said means for inflating the belt.

9. (New) Apparatus according to claim 8, wherein a first switch is inserted on a line connecting said AND gate with said D/A converter.

10. (New) Apparatus according to claim 8, wherein a second switch is inserted on a line connecting the A/D converter with the D/A converter, said second switch operating in push-pull mode with respect to said first switch.

11. (New) Apparatus according to claim 7, wherein said means for analyzing and processing of the electromyographic unit comprises a PC associated with the electromyographic unit.

12. (New) Apparatus according to claim 9, wherein a second switch is inserted on the line connecting the A/D converter with the D/A converter, said second switch operating in push-pull mode with respect to said first switch.

13. (New) Apparatus for controlling childbirth labor, said apparatus comprising:

- a pneumatic belt to be fixed around a parturient's abdomen;
- a means for inflating said pneumatic belt providing a thrust as an aid for expulsion of a fetus;
- electromyographic sensors;
- pressure sensors;
- a device for controlling activation of inflation means of said pneumatic belt, wherein said device is responsive to signals from electromyographic sensors and to pressure sensors that detect variations of internal pressure within said pneumatic belt due to uterine contractions; and
- a means for analyzing and processing said signals.

14. (New) Apparatus according to claim 13, wherein said device comprises an AND gate with AND gate inputs being connected, respectively, to an output of said electromyographic unit and to an output of an A/D converter located downstream of said sensors which are housed in the belt, and with its output being connected with the input of a D/A converter, D/A converter output is connected with said means for inflating the belt.

15. (New) Apparatus according to claim 14, wherein a first switch is inserted on a line connecting said AND gate with said D/A converter.

16. (New) Apparatus according to claim 14, wherein a second switch is inserted on a line connecting the A/D converter with the D/A converter, said second switch operating in push-pull mode with respect to said first switch.

17. (New) Apparatus according to claim 13, wherein said means for analyzing and processing of the electromyographic unit comprises a PC associated with the electromyographic unit.

18. (New) Apparatus according to claim 15, wherein a second switch is inserted on the line connecting the A/D converter with the D/A converter, said second switch operating in push-pull mode with respect to said first switch.